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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/066,513 04/24/98 REYNOLDS

K 21669USA

EXAMINER

NOLAN, S

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 03/16/00

IM62/0316

JOSHUA R SLAVITT
SYNNESTVEDT & LECHNER
SUITE 2600
1101 MARKET STREET
PHILADELPHIA PA 19107-2950

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/066,513

Applicant(s)

REYNOLDS ET AL

Examiner

Sandra Nolan

Group Art Unit

1772

☒ Responsive to communication(s) filed on Jan. 18, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-28 is/are pending in the applicat

Of the above, claim(s) 18-23 is/are withdrawn from consideration

☐ Claim(s) is/are allowed.

☒ Claim(s) 1-17 and 24-28 is/are rejected.

☐ Claim(s) is/are objected to.

☐ Claims are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received:

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) .

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 1772

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions was required under 35 U.S.C. 121:
 - I. Claims 1-17, drawn to a tube, classified in class 428, subclass 36.91; and
 - II. Claims 18-23, drawn to methods of molding, classified in class 264, subclass 126.
2. The reasons for the requirement were set out in the Office Action of September 14, 1999 (Paper No. 3).
3. Applicant's provisional election of Group I in Paper No. 3 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

- Key*
4. Claims 1-10, 12-17 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson et al (US 5,636,551) in view of Khattab et al (US 4,159,286).

Davidson et al shows cable assemblies that employ a cable covering for a steel wire comprising an inner polytetrafluorethylene ("PTFE") layer (13) and an outer graphite-containing PTFE covering (17). See the abstract and Figure 2A. They do not show the use of organic fillers in the inner layer.

Khattab et al teach the production of inner layers of cable sleeves from compositions containing polyamide resins and PTFE. The sleeves have low friction and high wear resistance. They do not teach outer PTFE coverings for cables.

Art Unit: 1772

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the PTFE/ polyamide combinations of Khattab et al in the inner layer of the cable assemblies and cable coverings of Davidson et al, since such combinations are conventionally used in such products.

In the absence of objective evidence to the contrary, the selection of layer thicknesses would have been an obvious way of tailoring the cable coverings' properties to particular needs.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson et al and Khattab et al, as applied to claims 1-10, 12-17 and 24-28 above, and further in view of Gruel (US 5,922,425).

Davidson et al and Khattab et al are discussed above.

Gruel shows multilayer articles made containing combinations of one or more tetrafluoroethylene ("TFE") polymers and other polymeric layers in tubing and cable jacketing (abstract). The use of fillers and processing aids is discussed at col. 5, line 62 and col. 6, line 4, respectively. The polymers are selected and combined based upon the properties desired for a particular application (col. 6, lines 66+). He does not show the specific fillers claimed in Applicants' inner and outer layers.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the combinations of TFE polymers suggested by Gruel in the production of cable coverings suggested by the combination of Davidson et al and Khattab et al.

Art Unit: 1772

Citation of Interest

6. DE 29716149UI discloses the cable coverings having inner and outer layers in which the inner layer may be PTFE-filled PTFE.

Response to Arguments

7. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is (703) 308-9545. The examiner can normally be reached on Monday through Thursday from 7:00 am to 4:00 pm. She can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ellis P. Robinson, can be reached on (703) 308-2364. The fax phone number for the art unit is (703) 305-5408. The telephone number for the receptionist is (703) 308-0661.



S. M. Nolan
Patent Examiner
Technology Center 1700